

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1 (currently amended). A clutching mechanism comprising:

at least one elastic layer which is a thin layer with a rim area surrounding a deformable area; two sides of said elastic layer defining an upper surface and a lower surface and wherein said elastic layer(s) is made of elastic silica gel materials;

at least two protrusions erected on said lower surface of said deformable area of said elastic layer(s) and extended outwardly; a tip of each of said protrusions defining a clutching point; said clutching points being separated at a predetermined distance;

a supporting mechanism anchored on said upper surface of said elastic layer(s) in said rim area; and

a driving mechanism deforming said elastic layer in a way that said deformable area is sunken inwardly, and thereby said clutching points of said protrusions moving closer to each other within a distance shorter than said predetermined distance;

wherein said clutching mechanism is ~~a micro/nano clutching mechanism~~ capable of clutching micro and nano sized objects.

2 (canceled).

3 (original). The clutching mechanism of claim 1, wherein said elastic layer(s) is a round thin layer and said supporting mechanism is a hollow tube, a rim of a cross section of said hollow tube being fixed to said rim area of said upper surface of said elastic layer(s), said protrusions are arranged uniformly in a pattern of an equilateral polygon in said deformable area on said lower surface of said elastic layer(s).

Claim 4 (canceled).

Appl. No. 10/601,596
Amendment dated: December 8, 2006
Reply to OA of: September 11, 2006

5(original). The clutching mechanism of claim 1, wherein the shape of said protrusions is selected from a group of a cone, a cylinder, a sloped-top cylinder, a rectangular body, and a triangular cone.

6(original). The clutching mechanism of claim 1, wherein said driving mechanism is a vacuum pump.

Claims 7-13(canceled).

14(previously presented). The clutching mechanism of claim 1, wherein said supporting means does not obstruct said deformable area when said deformable area is sunken inwardly.